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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,257	05/25/2001	Allen S. Malsbury	1762.5500	3376

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EXAMINER

WACHTEL, ALEXIS A

ART UNIT PAPER NUMBER

1764

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/864,257

Applicant(s)

MALSBURY ET AL.

Examiner

Alexis Wachtel

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7, 8, 10 and 13-16 is/are rejected.
- 7) ☐ Claim(s) 4-6, 11 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7-31-2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Detailed Action

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3,7,8,10,13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6264829 to Antalffy et al in view of US 5098524 to Antalffy et al.

With respects to claim 1,15,16, Antalffy et al ('829') teaches an apparatus for removing a bottom cover on a coke drum, the apparatus comprising: a vertical actuator (32, Antalffy et al '829') having a cover end (38, Antalffy et al '829') attached to the bottom cover and a support end (36, Antalffy et al '829'), wherein said vertical actuator is arranged to move the bottom cover vertically in a removal operation of the bottom cover; a rotating actuator (19, Antalffy et al '829') having a cover end (28, Antalffy et al '829') attached to the bottom cover and a support end (28, Antalffy et al '829') attached to said support structure and arranged to rotate the bottom cover in a removal operation; and a frame assembly having opposing ends (24, Antalffy et al '829'), a pivot end (28, Antalffy et al '829') being attached to the bottom cover and a sliding end being slidably mounted such that said frame assembly, said vertical actuator and said rotating actuator cooperate to remove the bottom cover in a removal operation.

Antalffy et al ('829') as set forth above fails to teach a support structure supporting at least the coke drum, and the support end of the vertical actuator and the

Art Unit: 1764

rotating actuator. Antalffy et al ('524') teaches a stiffener ring (15, Antalffy et al '829') wrapped around a coke drum. An actuator (22, Antalffy et al '829') is attached to the stiffener ring (15, Antalffy et al '829'). The stiffener rings function to structurally reinforce the coking drum. In view of this teaching it would have been obvious to one of ordinary skill at the time the invention was made to have provided Antalffy et al ('829') with a stiffener ring wrapped around the coking drum and providing means associated with the stiffener rings that facilitate support of the vertical and rotating actuator. One of ordinary skill would have been motivated by the desire to minimize coking drum stresses placed thereon by both vertical and rotating actuators.

With respects to claim 2, Antalffy et al ('829') as set forth above teaches that the vertical actuator is attached to the coking drum and bottom cover by way of pivot joints that allow pivoting about at least two orthogonal axis. However, Antalffy et al fails to teach that the vertical actuator is attached to the bottom cover and the support structure by way of pivot joints that allow pivoting about at least two orthogonal axis. Antalffy et al ('524') teaches a stiffener ring (15) wrapped around a coke drum. An actuator (22) is attached to the stiffener ring (15). The stiffener rings function to structurally reinforce the coking drum. In view of this teaching it would have been obvious to one of ordinary skill at the time the invention was made to have provided Antalffy et al ('829') with a stiffener ring wrapped around the coking drum and including pivot joints associated with the stiffener rings that facilitate support of the vertical actuator. One of ordinary skill would have been motivated by the desire to minimize coking drum stresses placed thereon by the vertical actuator.

With respects to claim 3, Antalffy et al ('829') as set forth above fails to teach that said rotating actuator is attached to a support structure by way of a pivot joint that is adapted to allow pivoting about only one axis. Antalffy et al ('524') teaches a stiffener ring (15) wrapped around a coke drum. An actuator (22) is attached to the stiffener ring (15). The stiffener rings function to structurally reinforce the coking drum. In view of this teaching it would have been obvious to one of ordinary skill at the time the invention was made to have provided Antalffy et al ('829') with a stiffener ring wrapped around the coking drum and to have included pivot means structurally associated with the stiffener rings that to facilitate support of the rotating actuator. One of ordinary skill would have been motivated by the desire to minimize coking drum stresses placed thereon by the rotating actuator.

Per claim 7: wherein said frame assembly is directly attached to the bottom cover (24, Antalffy et al '829').

With respects to claim 8, it is reasonable to interpret the pivot (28, Antalffy et al '829') as an in-direct means of attaching frame assembly (24 Antalffy et al '829') to the bottom cover.

Per claim 10: wherein said rotating actuator is pivotally attached to said connecting plate (24, Antalffy et al '829')

Per claim 13: wherein said frame assembly (24, Antalffy et al '829') and said rotating actuator (19, Antalffy et al '829') cooperate to simultaneously lift and rotate the bottom cover during a removal operation.

Art Unit: 1764

Per claim 14: wherein said rotating actuator (19, Antalffy et al '829') and said frame assembly (24, Antalffy et al '829') are pivotally attached to the bottom cover at the same location such that said rotating actuator supplies a force to said frame assembly, said frame assembly rotates in an arc and the bottom cover is simultaneously rotated and lifted during a removal operation. Examiner notes that the rotating actuator and frame assembly are attached to the bottom cover generally at the same location.

Allowable Subject Matter

3. Claims 4,5,6,9,11 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With respects to claim 4-6,9,11 and 12, no prior art has been found to teach or suggest the claimed floor actuator in combination with vertical and rotational actuators for deheading the head of a coke drum. At best, US 5500094 to Fruchtbaum et al teach a coke drum deheading system that utilizes a platform on wheels that supports a coke drum head and actuates its removal. Fruchtbaum et al are silent as to the inclusion of vertical or rotational actuators as claimed. Having employed a floor actuator integrated with vertical and rotational actuators as claimed could only be accomplished with impermissible hindsight motivation.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex Wachtel whose telephone number is 571-272-1455. The examiner can normally be reached on 10:30am to 6:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Glenn Caldarola, can be reached at (571)-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1764

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'Am'.A handwritten signature in black ink, appearing to be 'Glenn Caldarola'.

Glenn Caldarola
Supervisory Patent Examiner
Technology Center 1700